CLAIMS

1. A metal-supported porous carbon film wherein metal fine particles with a mean particle diameter of 0.7-20 nm are dispersed and supported on pore surface walls.

2. A metal-supported porous carbon film according to claim 1, wherein the metal fine particles contain platinum.

3. A metal-supported porous carbon film according to claim 1 or 2, wherein the metal fine particles undergo chemical reduction of the metal compound with a reducing agent via a catalyst on the pore surfaces of the porous carbon film for fine dispersion of the metal fine particles.

4. A metal-supported porous carbon film according to claim 3, wherein the catalyst is a palladium compound supported on a carbon film.

5. A metal-supported porous carbon film according to any one of claims 1 to 4, wherein from 15% to 95% of the metal fine particles consist of multiply twinned particles.

6. A metal-supported porous carbon film according to claim 5, wherein the multiply twinned particles are composed mainly of platinum.

7. A fuel cell electrode employing a metal-supported porous carbon film according to any one of claims 1 to 6.

8. A membrane-electrode assembly comprising fuel cell electrodes according to claim 7 bonded on both sides of a polymer electrolyte film.

9. A fuel cell comprising a fuel cell electrode, according to claim 7, as a constituent element.